

REMARKS

It has been clarified in the independent method claim 1 that all the steps of storing, receiving, and detecting are performed in one and the same network node (a first network node), and that the interfering transmission is being made by another node (a second network node). Similarly, it has been clarified in the independent arrangement claim 16 that all means for storing, receiving, and detecting are arranged in one and the same network node (a first network node), and that the interfering transmission is being made by another node (a second network node). New apparatus claims 32-39 have been added that do not employ means plus function language. Reconsideration and allowance are requested.

Claims 1-6, 8-11, 15-21, 23-26, and 30-31 stand rejected under 35 USC § based on US Patent 5,596,439 to Dankberg. This rejection is respectfully traversed.

To establish that a claim is anticipated, the Examiner must point out where each and every limitation in the claim is found in a single prior art reference. *Scripps Clinic & Research Found. v. Genentec, Inc.*, 927 F.2d 1565 (Fed. Cir. 1991). Every limitation contained in the claims must be present in the reference, and if even one limitation is missing from the reference, then it does not anticipate the claim. *Kloster Speedsteel AB v. Crucible, Inc.*, 793 F.2d 1565 (Fed. Cir. 1986). Dankberg fails to satisfy this rigorous standard.

Dankberg relates to self-interference cancellation for two-party relayed communication. Fig.1 of the '439 patent shows two users communicating with each other via a relay device. User 1 transmits signal S1 as a source signal, and user 2 transmits signal S2 as a source signal. The relay device receives a signal from each of the two users, and retransmits a composite signal formed from the two received signals back to both of the users. Each user knows its own source-transmitted signal and can also estimate the channel characteristics between the relay device and

itself. This means that each user can extract the desired received signal from the composite signal by using self-interference cancellation. Specifically, user 1 can extract S2 from the composite signal by eliminating its own source-transmitted signal S1 from the composite signal. Similarly, user 2 can extract S1 from the composite signal by eliminating its own source-transmitted signal S2 from the composite signal. Thus, the interference cancellation for each user/node is based on its *own transmitted* data.

The claims are directed to a scenario that is more complex than a simple two-party relayed communication. See for example Fig. 5 and Figs. 7A-D. With reference to the non-limiting example shown in Fig. 5, a first network node (B) stores previously received (at time T1) first signal information (S1) representative of a first set of information as previously-known signal information. This first set of information includes at least one data unit to be transmitted more than one time. The first network node (B) some time later (time T3) receives second signal information (S2) representative of a second set of information, with interference (INTERFERENCE) from another transmission of the at least one data unit in S1 by a second network node (C). The first network node (B) may then detect at least part of the second set of information by interference cancellation based on the received signal information (S2) representative of the second set of information and at least part of the previously stored known information (S1).

In Dankberg, it is the relay device that receives the source-transmitted signal S1/S2 and the respective user that receives the composite signal, i.e., different nodes. But the independent claims recite that the same node receive both the first signal and the second signal. Another difference is that the interference experienced at the considered network node is a result of a transmission of another separate network node, and hence it is not a question of self-interference

cancellation as in the '439 patent. It is not *own transmitted* data that is cancelled, but rather *previously received data* that is subsequently *transmitted by another network node*.


Claims 12 and 27 stand rejected for obviousness based on Dankberg in view of US Patent 5,963,559 to Ohki. This rejection is respectfully traversed.

Ohki describes using a slow radio transmission mode when retransmission of a data frame fails. A word search of the text in the Ohki patent on the USPTO web site reveals that the words "interference", "interfere", "cancellation", and "cancel" are not present in the document. Contrary to the contention made on page 6 of the office action, the Ohki patent is not in the same field of endeavor as the present application. Ohki relates to retransmission mechanisms in CSMA (Carrier Sense Multiple Access) type communications for local area networks. In contrast, the independent claims relate to detecting signal information in a wireless relaying network based on interference cancellation. In any event, Ohki fails to remedy the deficiencies of Dankberg noted above.

The application is in condition for allowance. An early notice to that effect is requested.

Respectfully submitted,

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